

THE ROLE OF TECHNOLOGY IN EDUCATION

TA'LIMDA TEXNOLOGIYANING TUTGAN O'RNI
РОЛЬ ТЕХНОЛОГИЙ В ОБРАЗОВАНИИ

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Abstract: The expanding use of technology in education and its effects on educational equity, efficiency, and quality are studied in this article. It discusses the benefits and drawbacks of employing interactive learning resources, online learning, and other technologies. Topics covered include digital inequality, a lack of technological skills, and evolving pedagogical approaches.

Keywords: technology, education, AI, learning, interactive learning, individualized learning, techniques, challenges, and technological knowledge.

Annotatsiya: Ushbu maqola texnologiyaning ta'limdagi tobora ortib borayotgan rolini va uning ta'lim sifatini, samaradorligini va tenglikni ta'minlashga ta'sirini o'rganadi. Onlayn ta'lim, interaktiv o'quv materiallari va boshqa texnologiyalarni qo'llashning afzalliklari va kamchiliklari, shu jumladan, raqamli tengsizlik, texnologiyalardan foydalanish malakasining etishmasligi va pedagogik yondashuvning o'zgarishi kabi muammolar muhokama qilinadi.

Kalit so'zlar: texnologiya, ta'lim, suniy intellekt, o'rganish, interaktiv ta'lim, individula ta'lim, texnikalar, qiyinchiliklar va texnologik bilim.

Аннотация: В этой статье исследуется растущая роль технологий в образовании и их влияние на качество, эффективность и справедливость образования. Обсуждаются преимущества и недостатки использования онлайн-обучения, интерактивных учебных материалов и других технологий, включая такие проблемы, как цифровой разрыв, отсутствие технологической грамотности и изменение педагогических подходов.

Ключевые слова: технологии, образование, искусственный интеллект, обучение, интерактивное обучение, персонализированное обучение, методы, проблемы и технологические знания.

Technology and education have a complex and wide-ranging relationship. Technology and education are interdependent. Education uses technology to improve learning outcomes. By enhancing teaching strategies and resources, technology can help students learn more quickly.

For instance, students can obtain knowledge more easily and study more efficiently when they use technology tools like computers and the Internet. Technology also allows pupils to learn about other cultures and engage with other students worldwide.

The use of digital technology in education has become essential in today's environment of rapid change. Digital technology in the classroom has completely changed how teachers and students learn. For both students and teachers, it has created countless opportunities by making education more approachable, enjoyable, and participatory.

Technology has made a wide range of contributions to education. First of all, technology makes information instantly accessible. Through the internet, students can readily access information sources from around the globe. Students' curiosity is piqued, and the learning process is enhanced.

The educational system can also be altered by technology, which can make learning more individualized and flexible. Students can have a more efficient learning experience and learn at their speed. Education is becoming more accessible because of technology, which gives kids in remote and low-income places access to education.

Personalization of learning is one of the most significant advantages of digital technology in education. Teachers can use technology to design customized lesson plans that cater to the interests, learning preferences, and speed of each student. Additionally, students have access to a vast array of online tools and resources that let them learn in any setting, at any time, and at their speed.

Students can learn in a personalized way when technology is used in the classroom. Technology can be utilized to present students with personalized content and to determine their interests, strengths, and shortcomings. This enables every student to learn in a manner that best meets their requirements and at their speed.

In addition, digital technology makes learning more engaging and interactive. e-textbooks Modern classrooms are equipped with digital devices, interactive whiteboards, and online platforms that allow students to participate in virtual discussions, quizzes, and games. These tools not only make learning more engaging but also help students retain information better and improve their critical thinking and problem-solving skills.

These tools are:

- ❖ Interactive whiteboards and projectors: Enhance conventional teaching strategies and promote student engagement.
- ❖ Online collaboration tools: Students can collaborate on projects, share ideas, and receive feedback from one another using applications like Google Docs and Microsoft Teams.

❖ Gamification: Including game aspects in the educational process makes learning more engaging and motivates students.

❖ Tools for data analysis and analytics: Helpful for comprehending how students learn, determining their areas of strength and weakness, and customizing instruction.

❖ Learning systems based on artificial intelligence (AI): AI is used to develop customized learning plans, offer students individualized support, and evaluate their knowledge.

Technology enhances the enjoyment and interactivity of learning activities. Giving pupils access to both visual and aural resources is a crucial step in helping them to understand abstract ideas. Students can experience teachings more stunningly with the use of 3D simulations, augmented reality, and virtual reality.

The development and selection of multimedia, interactive, and other teaching resources are all actively carried out by the teacher. Their quality and fit for the kids are monitored by the teacher.

A large number of schools use online learning tools. When it comes to overseeing these platforms, helping pupils, and keeping an eye on their progress, the teacher is crucial. Each student's needs can be met by the teacher using a customized approach with the use of technology. After determining their skills and limitations, the teacher offers the required assistance.

The following are some successful strategies for integrating technology into the classroom:

❖ Putting educational technology at the core of learning processes rather than merely as a tool and incorporating it into the curriculum.

❖ Conducting ongoing research on educational technologies, testing out new resources, and refining instructional strategies.

❖ Delivering information that can accommodate the demands of many student groups to use technology to promote diversity and inclusivity in education.

❖ Focusing on goal-setting, planning, and assessment procedures to ensure proper and efficient technology utilization.

Restraints and Difficulties:

❖ Digital divide in underdeveloped nations: Educational disparities can be made worse by unequal access to technology.

❖ Efficiency of technology use: Both teachers' and students' abilities are critical to efficient technology use. Effectiveness does not grow with the use of technology alone.

❖ Regular access to the Internet: While work requires an Internet connection, in certain regions of the world, this link is unreliable or nonexistent.

❖ Online education raises important questions about data security and privacy.

❖ Shift in pedagogical approach: Teachers' teaching methods must adapt to the use of technology in the classroom, which necessitates the development of new abilities.

The use of technology in the classroom is always changing and will only grow in significance over time. Education could be drastically altered by new technologies like augmented reality, virtual reality, and artificial intelligence.

However, the adaptability of the educational system, teacher preparation, and ethical considerations must all be taken into account for technology integration to be successful. Future educational systems must be created with the human element in mind and evolve in tandem with technology.

Education could become more efficient, more democratized, and more personalized with the use of technology. However, tackling inequality, teacher preparation, and pedagogically effective implementation require particular attention. Technology is a tool, but human intervention determines how effective it is.

Reference

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